

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

VOL. XXIX.

APRIL, 1901.

No. 4

INTRODUCTION.

The MONTHLY WEATHER REVIEW for April, 1901, is based on reports from about 3,100 stations furnished by employees and voluntary observers, classified as follows: regular stations of the Weather Bureau, 159; West Indian service stations, 13; special river stations, 132; special rainfall stations, 48; voluntary observers of the Weather Bureau, 2,562; Army post hospital reports, 18; United States Life-Saving Service, 9; Southern Pacific Railway Company, 96; Canadian Meteorological Service, 32; Mexican Telegraph Service, 20; Mexican voluntary stations, 7; Mexican Telegraph Company, 3; Costa Rica Service, 7. International simultaneous observations are received from a few stations and used, together with trustworthy newspaper extracts and special reports.

Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada; Mr. Curtis J. Lyons, Meteorologist to the Hawaiian Government Survey, Honolulu; Señor Manuel E. Pastrana, Director of the Central Meteorological and Magnetic Observatory of Mexico; Camilo A. Gonzales, Director-General of Mexican Telegraphs; Mr. Maxwell Hall, Government Meteorologist, Kingston, Jamaica; Capt. S. I. Kimball, Superintendent of the United States Life-Saving Service; Commander Chapman C. Todd, Hydrographer, United States Navy; H. Pittier, Director of the Physico-Geographic Insti-

tute, San Jose, Costa Rica; Captain François S. Chaves, Director of the Meteorological Observatory, Ponta Delgada, St. Michaels, Azores, and W. M. Shaw, Esq., Secretary, Meteorological Office, London. Rev. Josef Algue, S. J., Director, Phillipine Weather Service.

Attention is called to the fact that the clocks and self-registers at regular Weather Bureau stations are all set to seventy-fifth meridian or eastern standard time, which is exactly five hours behind Greenwich time; as far as practicable, only this standard of time is used in the text of the REVIEW, since all Weather Bureau observations are required to be taken and recorded by it. The standards used by the public in the United States and Canada and by the voluntary observers are believed to conform generally to the modern international system of standard meridians, one hour apart, beginning with Greenwich. The Hawaiian standard meridian is 157° 30' or 10^h 30^m west of Greenwich. Records of miscellaneous phenomena that are reported occasionally in other standards of time by voluntary observers or newspaper correspondents are sometimes corrected to agree with the eastern standard; otherwise, the local standard is mentioned.

Barometric pressures, whether "station pressures" or "sea-level pressures," are now always reduced to standard gravity, so that they express pressure in a standard system of absolute measures.

FORECASTS AND WARNINGS.

By Prof. E. B. GARRETT, in charge of Forecast Division.

Forecasts of wind and weather for the first three days out of steamers bound east from United States ports were made daily during the month and published on the weather maps issued in Washington, Baltimore, New York, and Boston.

Three important disturbances appeared over the United States during the month. The first of these occupied the west Gulf coast on the morning of the 1st, and moved thence to the middle Atlantic and New England coasts by the 4th, its passage being attended on the 3d by gales of 40 to 50 miles an hour from Hatteras to Eastport. The second traversed the United States from the north Pacific to the middle Atlantic coasts from the 1st to the 6th; thunderstorms occurred from Texas to the Ohio Valley, and northeast shifting to northwest gales over the Great Lakes, during the 5th; high easterly shifting to north and northwest winds prevailed on the middle Atlantic and New England coasts during the 6th and 7th. The third assumed definite form over Texas on the morning of the 17th, moved thence eastward over the Gulf States during the 18th, recurved northeastward over the South Atlantic States during the 19th, reached the Middle Atlantic States on the 20th, from which region it drifted westward over the Ohio Valley and dissipated. The rain which attended this dis-

turbance was heavy, and in the Ohio Valley the rain which began on the 18th and continued through the 21st resulted in destructive floods. A detailed description of these floods will be found under the heading Rivers and Floods. The character and value of the warnings which were issued by the Weather Bureau in connection with the floods are indicated by the following editorial in the St. Louis, Mo., Republic of May 7, 1901:

HONOR IS DUE.

Hereafter it may be assumed that the Weather Bureau man will be held in high esteem throughout the Ohio Valley. During the flood period now gradually closing millions of dollars have been saved through the warnings that have been given by this branch of the Government service.

It is so seldom that the Weather Bureau receives credit for correct forecasts that the widespread commendation for the timely warnings that have been given the people of the inundated section is notable. So accustomed have the people become to observing the mistakes of the Weather Bureau that the almost universal regard which the public really feels for the service is seemingly hid beneath showers of good natured banter.

That any talk of abolishing the service should ever have been seriously considered seems utterly preposterous. The actual amount saved to the people through the warnings given in the great flood is a thousand times more than the annual cost of the service. All praise to a department that is too often slighted.